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EPA Takes First Step In Filling Nanotech Information Gaps
Additional action urgently needed to ensure confidence in safety

WASHINGTON, DC—The U.S. Environmental Protection Agency (EPA) published today in the *Federal Register* its plan for the Nanoscale Materials Stewardship Program under the Toxic Substances Control Act (TSCA). The plan takes a positive first step by offering industry, non-governmental organizations and other groups the opportunity to voluntarily submit safety data on engineered nanoscale materials.

According to Project on Emerging Nanotechnologies (PEN) Director David Rejeski, “The information obtained under the stewardship program could help government officials develop a better understanding of the risks and benefits posed by the novel materials, but this voluntary program provides virtually no incentives for industry participation. Swift action is needed now to ensure public and market confidence in the safety of these materials. EPA officials first announced in June 2005 the agency’s intention to launch the stewardship program, and at this point – almost three years later – the need for action is that much greater.”

According to former EPA official and PEN senior advisor J. Clarence Davies, “Starting the stewardship program is a positive step toward filling in some of the information gaps facing the agency. But there should be an interplay between modifying TSCA, such as promulgating a significant new use rule for nanomaterials, and the voluntary program. A sequential approach will leave nanomaterials unregulated for far too long, and will also be less productive than if the two efforts proceed in tandem.”

In its announcement of the voluntary program, EPA also notes that it will not change its policy on what constitutes a new chemical under TSCA. That policy, put forward last year, says the agency will not consider size when deciding when a chemical is a new chemical under TSCA – even though size is a determining factor in what constitutes a nanomaterial. If a substance is determined to be new under TSCA, it can result in extensive first-time testing to determine the risks posed by the substance.

Davies adds, “The agency’s current oversight approach is inadequate to deal with nanotechnology. It is essential that EPA move quickly to recognize the novel biological and

ecological characteristics of nanoscale materials. It can do this by using the ‘new uses’ provisions of TSCA, a subject not mentioned in the EPA’s concept document. With the approach outlined by EPA and because of the weaknesses in the law, the agency is not even able to identify which substances are nanomaterials, much less determine whether they pose a hazard.”

PEN science advisor Andrew Maynard added, “EPA’s approach ignores the existing scientific research that suggests different nanostructures with the same molecular identity present different hazards.”

In May 2007, Davies authored the first in-depth analysis of EPA’s nanotech readiness, *EPA and Nanotechnology: Oversight for the 21st Century*. This PEN report is available at <http://www.nanotechproject.org/124/>.

The report recommends more than 25 actions that need to be taken—by EPA, Congress, the President, the National Nanotechnology Initiative, and the nanotech industry—to improve the oversight of nanotechnologies.

About Nanotechnology

Nanotechnology is the ability to measure, see, manipulate and manufacture things usually between one and 100 nanometers. A nanometer is one billionth of a meter; a human hair is roughly 100,000 nanometers wide.

J. Clarence (Terry) Davies is a senior advisor to PEN and Senior Fellow at Resources for the Future. Dr. Davies served during the administration of the first President Bush as Assistant Administrator for Policy, Planning and Evaluation at EPA. Earlier, as a senior staff member at the Council on Environmental Quality, he wrote the original version of what became TSCA. In 1970, he co-authored the plan that created EPA.

Andrew Maynard serves as the science advisor to PEN. He is an internationally recognized expert on nanotechnology environmental, safety and health risks. His PhD is from Cambridge University (UK).

David Rejeski directs PEN and for the past four years he has been the Director of the Foresight and Governance Project at the Woodrow Wilson Center. He was a Visiting Fellow at Yale University’s School of Forestry and Environmental Studies and an agency representative (from EPA) to the White House Council on Environmental Quality (CEQ). Before moving to CEQ, he worked at the White House Office of Science and Technology (OSTP) on a variety of technology and R&D issues, including the development and implementation of the National Environmental Technology Initiative. Before moving to OSTP, he was head of the Future Studies Unit at EPA.

The **Project on Emerging Nanotechnologies** is an initiative launched by the Woodrow Wilson International Center for Scholars and The Pew Charitable Trusts in 2005. It is dedicated to helping business, government and the public anticipate and manage possible health and environmental implications of nanotechnology. For more information about the project, log on to www.nanotechproject.org.

The Pew Charitable Trusts (www.pewtrusts.org) is driven by the power of knowledge to solve today's most challenging problems. Pew applies a rigorous, analytical approach to improve public policy, inform the public and stimulate civic life. We partner with a diverse range of donors, public and private organizations and concerned citizens who share our commitment to fact-based solutions and goal-driven investments to improve society.

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